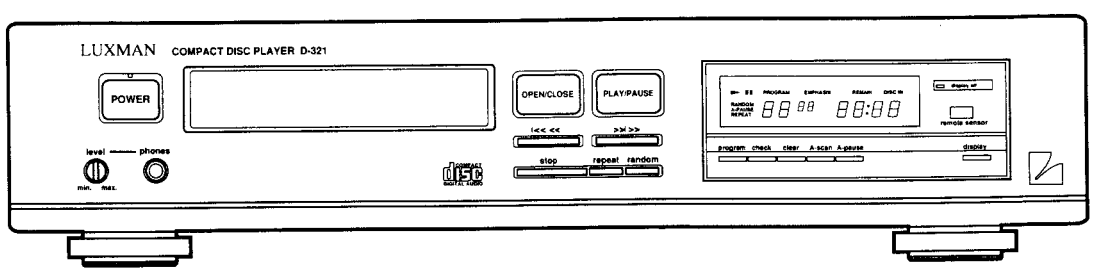
SERVICE MANUAL

Compact Disc Player

D-321

- This model comes in 2 colors (Black and Champagne Gold). Refer to this Serice manual for details.



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Specifications

<CD SECTIONS>

System	Optical (Compact Disc System)
Quantizing Bit Number	16 bit linear
Channel	2 (Stereo)
Pickup	Semiconductor laser type
Distortion (at 1kHz)	0.01%
Frequency Response	5Hz to 20kHz : 0 ± 1.5dB
S/N Ratio	99dB
Separation	95dB
Dynamic Range	88dB

<COMPACT DISC>

Track Pitch	1.6μm
Modulation Frequency	44.1kHz
Transfer Rate	43.218M bit/sec.
Dimension	80 / 120 × 1.2mm

<GENERAL>

Power Supply	AC 120 / 220 / 240V, 50Hz (○, △, □) AC 120V, 60Hz (▲)
Output Voltage (at 1kHz, 0dB)	2V ± 1.5dB
Headphone Output Voltage (at 1kHz, 20dB / 8ohm)	38mV ± 1.5dB
Semiconductors	13 IC's, 16 Transistors, 30 Diodes, 1 Zener Diode (○, △, □) 13 IC's, 16 Transistors, 32 Diodes, 1 Zener Diode (▲)
Dimensions (W × H × D)	438 × 90 × 346mm
Weight	4.6kg

Notes: Due to continuing product improvement, specifications and designs are subject to change without notice.

○ : For With Safety Regulations Version (Black Type) (AD),

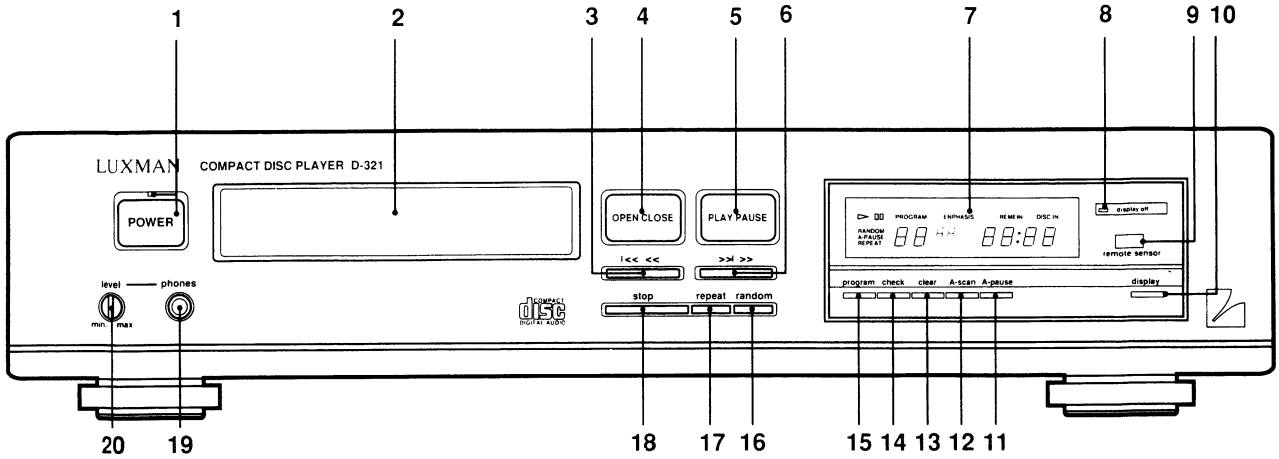
△ : For Without Safety Regulations Version(Black Type) (EK),

□ : For With Safety Regulations Version (Champagne Gold Type) (AD),

▲ : For Canada Version (UQ), Others : Common.

Names and Functions of Parts

Front Panel



1. **"POWER" button and indicator**

   Press "POWER" button to turn power on and off to the unit. The Operation indicator lights up when this button is depressed.

2. **Disc Tray**

   Press the OPEN/CLOSE button (item #4) to open the Disc Tray. Place a disc on this tray, label side up. A light touch on the Tray, when open, will cause it to retrack back into the unit ready for play. Pressing Play/Pause (item #5), "A-scan" (item #12) and Direct Access Select (item #32) buttons on the remote control will also close the tray and cause the unit to go into immediate play operation.

Note:
To use 8 cm (3 inch) single CDs, place them on the inner circular recessed area marked "8 cm disc" on the tray.

---

3. **Backward Skip/Scan button (I◀◀/◀◀)**

   Pressing this button for longer than 0.5 seconds will activate the backward scan mode. To more than double the scan speed, press this button in the pause mode.
   Pressing this button and releasing it immediately will cause return to the beginning of the current selection; a second immediate push will cause a skip to the preceding selection.
   When the pickup comes to the first selection, the next push will cause it to go to the beginning of the last selection on the disc.

4. **"OPEN/CLOSE" button (⏏)**

   Press to open or close the Disc Tray. (See also item #2.)

5. **PLAY/PAUSE button (▶/II)**

   When pressed in the stop or pause mode, playback will begin.
   When pressed during playback, the player will go into the pause mode.

6. **Forward Skip/Scan button (▶▶I/▶▶)**

   Pressing this button for longer than 0.5 seconds will activate the forward scan mode. To more than double the scan speed, press this button in the pause mode.
   Pressing this button and releasing it immediately will cause the player to skip forward, one selection (track) at a time for each successive push.
   When the player comes to the last selection, the next push will return the pickup to the first selection.

7. **Display**

   Track, index, time, etc. are all simultaneously shown in this Display. Refer to page 11 and Operation Guidelines for details.

8. "display off" indicator

Lights up when the display is turned off with the "display" button (item #10).

9. Remote Sensor

When using the hand held remote control, it must be pointed toward this sensor to activate operational functions.

10. "display" button

Each push of this button selects one of 2 disc timing displays and will turn off display as follows:

- "REMAIN" OFF
  Time elasped since beginning of current track. This occurs with "REMAIN" indicator OFF.

- "REMAIN"
  Play time remaining on entire disc. This occurs with "REMAIN" indicator ON.

Note:
When in programmed play mode, the remaining time displayed will be that of the selections programmed, not the entire disc.

---

11. "A-pause" (auto-pause) button

Pressing this button will cause the machine to activate Pause automatically at the end of any currently playing track.
To resume play, press the Play button.
While the auto pause function is activated, "A-pause" will show in the display.

12. "A-scan" (auto-scan) button

When pressed, "A-Scan" begins and the track number digit(s) in the display flash continuously. The first 10 seconds of each track on the disc will be automatically played, beginning at track #1. If in programmed mode, pressing this button will scan each track in the program, beginning with the first selection programmed.

13. "clear" button

This function allows track by track clearing, in sequence, of any programmed track, beginning with the last track programmed. With each push of this button, the next track to be cleared will appear under "PROGRAM" in the display. The program sequence number appears just to the right of the "PROGRAM" track number.

Note:
Clear operates only in the stop mode.

---

14. "check" button

Use this button to check the order of the selections that have been programmed. With each successive push of this button, the track numbers that have been programmed will be shown to the left and the programmed order to the right, in the track display area (the time portion of the display will turn off).

Note:
The "check" operates only in the stop mode.

---

15. "program" button

Use this button in conjuction with the Skip up/ down buttons (items #3, 6), or any Direct Access Select button (item #32) on the remote control, to program up to 32 track selections in any random order. To clear program contents, press Stop button (item #18) in the stop mode.

16. "random" button

Use this button to automatically change the order of tracks to be played at random. During random play operation, "RANDOM" appears in the display.

17. "repeat" button

In normal play, random play or A-scan mode, press this button to repeat all tracks on a disc.

18. Stop button (■)

One press of this button will stop playback and return the pickup to the beginning of the disc. A second push will clear (reset) all memory contents.

Note:
The total number of tracks and the total playing time on the disc will always show on the display in the STOP mode.

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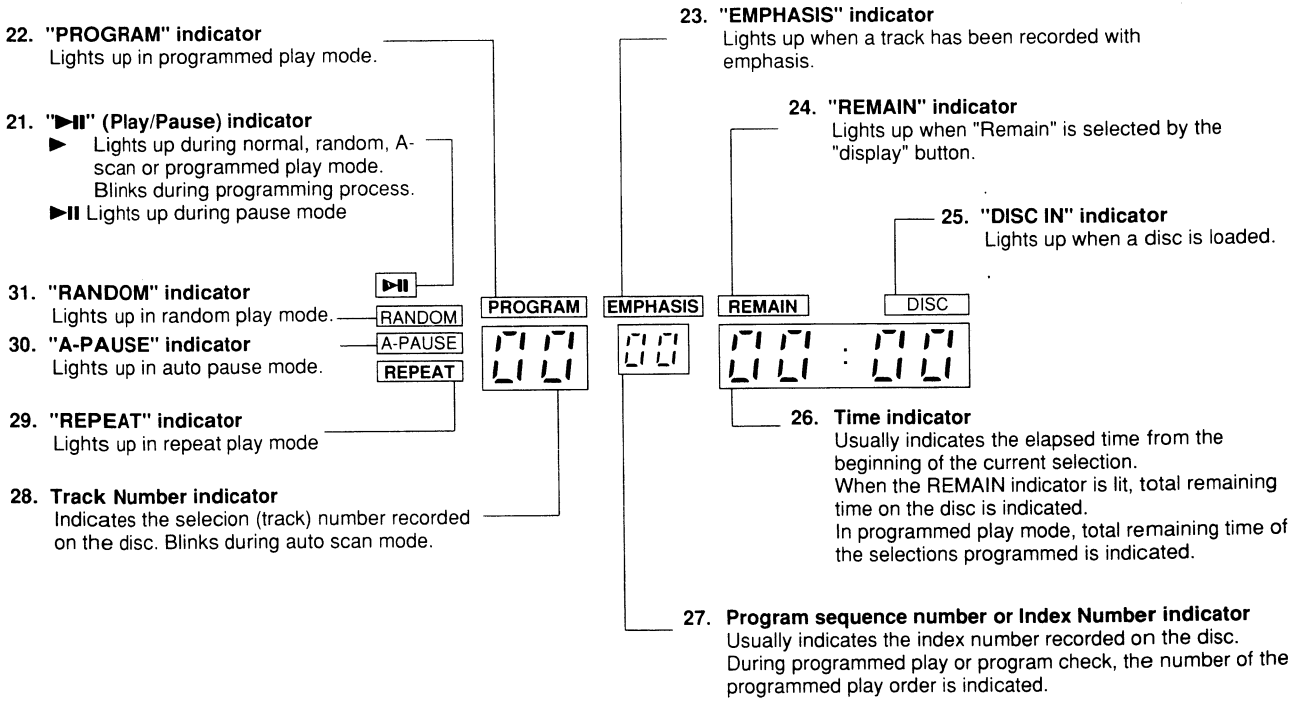
19. "phones" jack

For private listening or monitoring with stereo headphones.

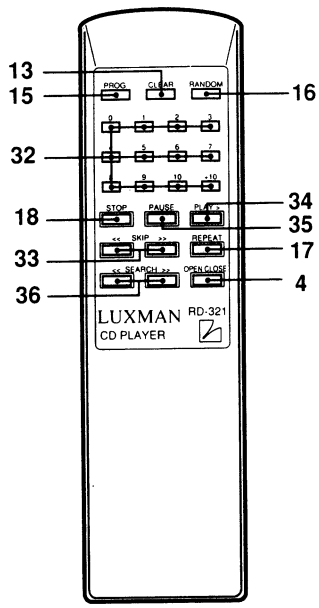
20. "phones-level" control

Adjusts the output level of the phones jack (item #19).

Display


22. "PROGRAM" indicator
Lights up in programmed play mode.
21. "▶II" (Play/Pause) indicator
▶ Lights up during normal, random, A-scan or programmed play mode. Blinks during programming process.
▶II Lights up during pause mode
31. "RANDOM" indicator
Lights up in random play mode.
30. "A-PAUSE" indicator
Lights up in auto pause mode.
29. "REPEAT" indicator
Lights up in repeat play mode
28. Track Number indicator
Indicates the selecion (track) number recorded on the disc. Blinks during auto scan mode.
23. "EMPHASIS" indicator
Lights up when a track has been recorded with emphasis.
24. "REMAIN" indicator
Lights up when "Remain" is selected by the "display" button.
25. "DISC IN" indicator
Lights up when a disc is loaded.
▶II
RANDOM
A-PAUSE
REPEAT
PROGRAM
EMPHASIS
REMAIN
DISC
26. Time indicator
Usually indicates the elapsed time from the beginning of the current selection.
When the REMAIN indicator is lit, total remaining time on the disc is indicated.
In programmed play mode, total remaining time of the selections programmed is indicated.
27. Program sequence number or Index Number indicator
Usually indicates the index number recorded on the disc.
During programmed play or program check, the number of the programmed play order is indicated.

Remote Control Unit



32. Direct Access select buttons

Use for programming or immediate play of any track from 1 to 99.

33. "SKIP" buttons (I◀◀/,▶▶I)

These buttons allow the player to "skip" forward or backward over any selection (track) in one selection increments.
Pressing the I◀◀ button once will cause return to the beginning of the current selection; a second immediate push will cause a skip back to the preceding selection.

When the pickup comes to the first selection, the next push will cause it to go to the beginning of the last selection on the disc.
Pressing the ▶▶I button will cause the player to skip forward, one selection at a time for each successive push.
When the player comes to the last selection, the next push will return the pickup to the first selection.

34. "PLAY" button (▶)

Press the "PLAY" button when loading a disc for immediate playback beginning at track 1 and for starting a programmed or random sequence.

35. "PAUSE" button (II)

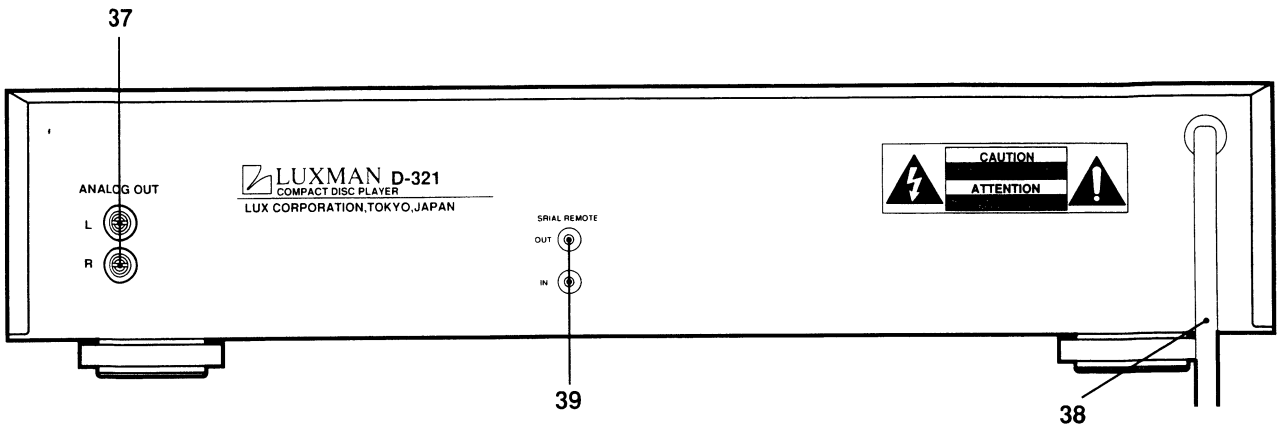
Press this button to temporarily cease playback or to cue up a track or segment for recording etc. To resume playback, press the "PAUSE" button again or press the "PLAY" button.

36. SEARCH (Scan) buttons (<<, >>)

When pressed, these buttons provide fast forward or backward scan within a track (music) selection.

Note:
Operation is the same as for the buttons on the set.

Rear Panel



37. "ANALOG OUT" jacks

For connection to the CD inputs of any amplifier or receiver. The output level is 2 volts fixed, referenced to 0 dB recording level.

Note:
Turn the power off before connecting these jacks.

38. AC Power Cord

Insert the AC plug of the D-321 into an appropriate wall outlet.

39. "SERIAL REMOTE IN and OUT" jacks

Use these jacks for simple and convenient connections to other Luxman components for remote control operation.
Connect these "SERIAL REMOTE IN" and "OUT" jacks to the "SERIAL REMOTE OUT" and "IN" jacks, respectively, on other Luxman components (in a daisy chain fashion), for a unified remote control system. See Connection Guidelines.

Notes:
Turn off the power before connecting these jacks.
These jacks are available on the Canadian models only.

Connection Guidelines

Before Making Connections

It is always wise to ensure that all AC power cords of the various components that you are interconnecting are unplugged from the wall outlets during the hook-up process. This will prevent any inadvertent damage to your speakers or amplifier from incorrect control settings or connections.

Connection of the Output Jacks

- Connect "ANALOG OUT" jacks to the CD input jacks of your integrated amplifier or receiver with the supplied phono type patch cords.

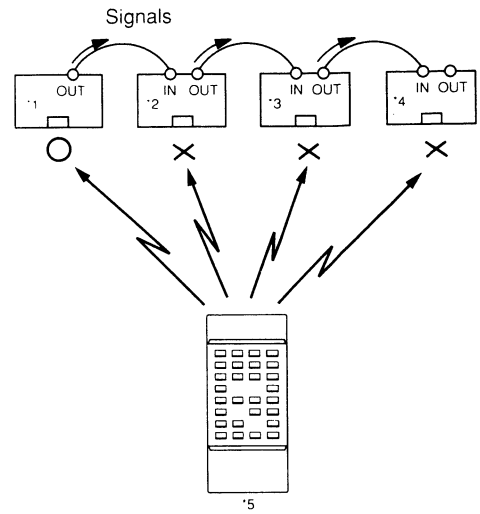
When connecting, be sure that left and right channel identification is correct. The patch cords are colour coded with Red ends for right channel and Black or White ends for the left channel, to make this job easier.

AC Power Supply Cord

Insert the AC plug into an appropriate wall outlet.

Connection of the Serial Remote IN/OUT Jacks (only Canadian Model)

"DAISY CHAIN" SERIAL REMOTE INTERCONNECTING LEADS



- "Daisy Chain" Serial Connections (see above).
  O: Remote operation possible (for all units connected).
  ×: Direct remote operation not possible
  *1: Remote control centre (R-117, R-115, etc.)
  *2: D-321
  *3: Tape deck (Future product)
  *4: Tuner
  *5: RR-117, RR-351, RR-341

Components 2, 3 and 4 can be connected in any order.

Note:
Turn the power off before connecting these jacks.

Operation Guidelines

The following guidelines assume that all connections have been made according to the "Reference Illustrations,".

Initial Set-Up

Make sure all connections are securely made. Turn the volume of the amplifier fully down and turn the power on to all the components in use. Adjust the volume of the amplifier to a suitable level just prior to playback.

Push the "open/close" button (item #4) on the D-321 and set a disc on the disc tray, label surface up.

Note:
To use 8 cm (3 inch) single CDs, place them on the inner circular recessed area marked "8 cm disc" on the tray.

Normal Play

1. After the disc is loaded, press the Play/Pause button (item #5).

2. Playback will begin from the first track number, continuing on through the remaining tracks.

3. Playback automatically stops after the last track on the disc is played (unless in the repeat mode).

Note:
The word "**EMPHASIS**" will light up in the display if a disc or track has been recorded with pre-emphasis. This is a standard CD noise reduction system sometimes used by the disc manufacturer. The D-321 automatically switches in the standard deemphasis circuit when this occurs and requires no action on the part of the user.

Direct Track Access

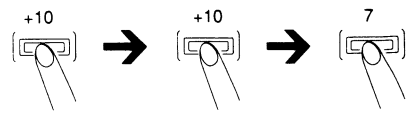
- Direct access operation is available on the Remote Control unit only. (Not available on the main unit.)

1. Use the Direct Access Select buttons (item #32) to specify a desired track.

2. The selected track number will appear on the display and playback will begin immediately.

3. Playback will stop automatically after the last track is played (unless in the repeat mode).

Example:
For Direct Access to the 27th selection.



Random Play

If desired, activating this function will allow the computer in the unit to select tracks, in a completely random manner, for playback. While the selection is random, it does not repeat any given track. Rather, it plays each randomly selected track once, shutting off automatically after all tracks are played. If the REPEAT function is also selected, then the unit will continuously replay all tracks but in a completely different order each time.

1. Press the "random" button (item #16) and "RANDOM" will light up on the display.

Note:
When random is pressed, it will cancel any programmed tracks.

---

2. Press the Play/Pause button (item #5).

3. When playback of the last track completes with the "REPEAT" not lit on the display, the unit enters the stop mode.

4. To cancel the random function, press the "random" button. The "RANDOM" indicator will turn off.

Repeat Play

1. When the "repeat" button (item #17) is pressed during normal or random playback, all tracks on the disc will be repeated continuously.

   If the "repeat" button is pressed during programmed playback, all programmed tracks will be repeated continuously.

2. Pressing the "repeat" button a second time, will cancel the repeat function.

Programmed Play Operations

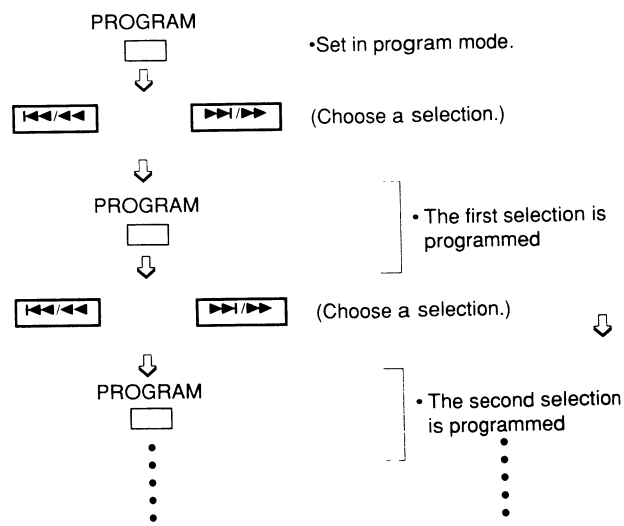
Programming

1. Press the "program" button (item #15) in stop mode to enter the program mode.

2. Choose the selection to be programmed by pressing the Forward Skip button (item #6), the Backward Skip button (item #3) or any Direct Access Select button (item #32) on the remote.

3. Press the "program" button after each selection, except when using the Direct Access Select buttons on the remote. Track numbers may be entered directly, one after the other, when using the remote. See (Direct Track Access), page 12 for instructions on entering numbers above 10. Also, "– –" indication will appear on the display, instead of numbers, if more than 99 minutes and 59 seconds (99:59) of total remaining time has been accumulated in a programmed sequence. (This does not indicate a malfunction.)

Note:
If more than 32 selections are chosen, "FULL" will be displayed on the Display for about 4 seconds, showing that no more selections can be added to the program.



4. Press the Play/Pause button (item #5), and the selections are played back in the programmed order.

Program Check

The programmed track numbers and the order they were placed in memory can be checked.

1. Press the "check" button (item #14) with the unit in stop mode.

2. With each successive push of the "check" button, the programmed track numbers will be shown on the display in the order of playback.

Note:
When the "check" button is continuously pressed, the memory check function will operate automatically, showing the track numbers to the left and order of playback to the right in the display.
When the check operation completes, it will stop on the last track programmed. If the button is held down, it will scan the memory again.

Clearing Programmes

1. Select the specific track you wish to clear with the "check" button (item #14). Then press the "clear" button (item #13).

Note:
If you do not use the "check" button, clearing will begin with the last track programmed and continue with each successive push of the "clear" button.

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2. To clear the entire program, press the Stop button (item #18) twice.

Timer Play

With the use of an external AC power timer, the D-321 can be made to turn on and go into automatic play at any desired time.

Note:
The AC power plugs of the components used for timed playback must be connected to the AC outlets of the timer.

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1. Be sure the "POWER" button (item #1) is depressed on the D-321 and load a compact disc.

2. Set the playback start time and end time with the external timer. Also properly set all controls on each component used in the system for timer play as necessary.

3. Make sure the power switches on all other components used in the system for timer play operation are switched to their ON positions.

4. Set the timer to the desired start and stop times. When the power is turned on by the timer, the D-321 will start playback and the entire system will operate as previously set.

Remote Operations

For reliable operation, use the hand-held remote within the basic dimensional area.

Battery Replacement

1. Open the battery compartment cover on the rear of the remote control unit. The cover should open easily if you press on the tab with your thumbnail and lift up.

2. Place two "AA" size dry batteries in the battery compartment in accordance with the diagram in the compartment, then replace the cover.

Incorrect use of batteries may lead to leakage or rupture. Be sure to follow these guidelines:

A. Always insert batteries into the battery compartment correctly matching the positive (+) and negative (–) polarities as shown in the diagram inside the compartment.

B. Never mix new and used batteries together.

C. Both rechargeable and non-rechargeable batteries are available. Be sure to use your batteries in accordance with the instructions provided on the cells.

Disassembly Instruction

1. Removal of the CD Mechanism

(1) After removal of the Top Cover, remove three screws marked "○" as shown in Figure 1.
(2) Disconnect all wires from the CD Mechanism.

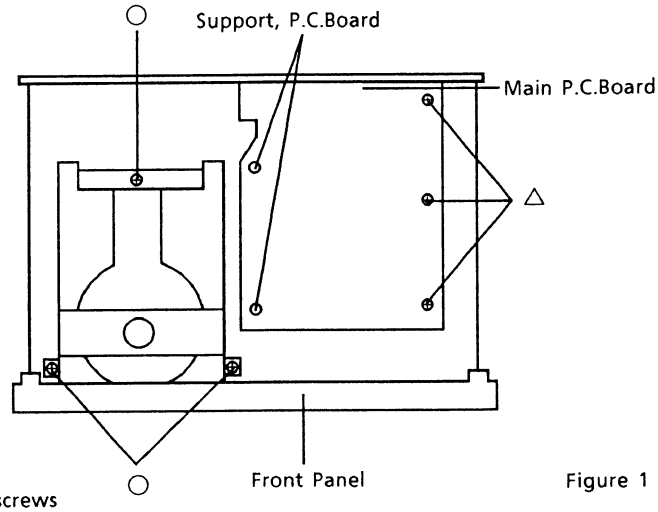


Figure 1

2. Removal of the Front P.C.Board

(1) After removal of the Front Panel, remove seven screws marked "×" as shown in Figure 2.
(2) Disconnect all connectors from the Front P.C.Board.

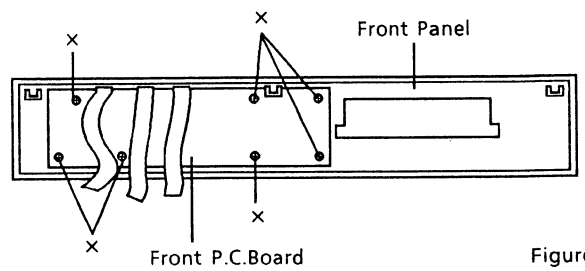


Figure 2

3. Removal of the Main P.C.Board

(1) After removal of the Top Cover, remove five screws marked "△" as shown in Figures 1 and 4.
(2) Remove two supports, P.C.Board from the Main P.C.Board as shown in Figure 1, by pushing the point "A" as shown in Figure 3.
(3) Disconnect all connectors from the Main P.C.Board.

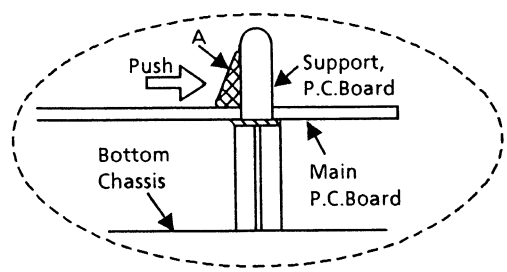


Figure 3

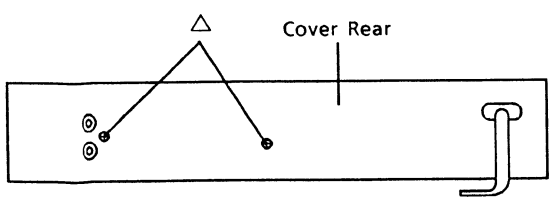


Figure 4

Adjustment Procedures

1. Compact Disc Section

(1) Connections

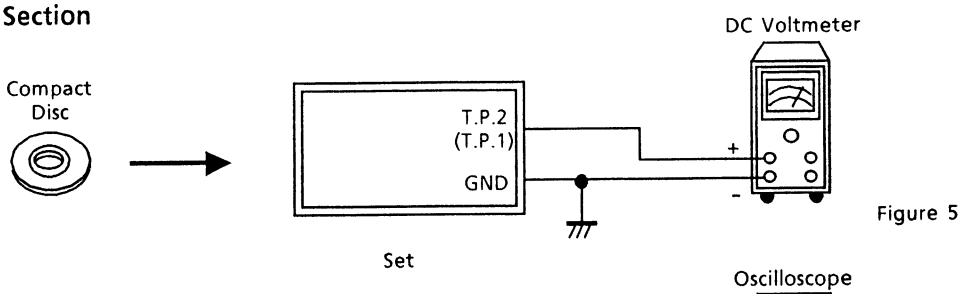


Figure 5

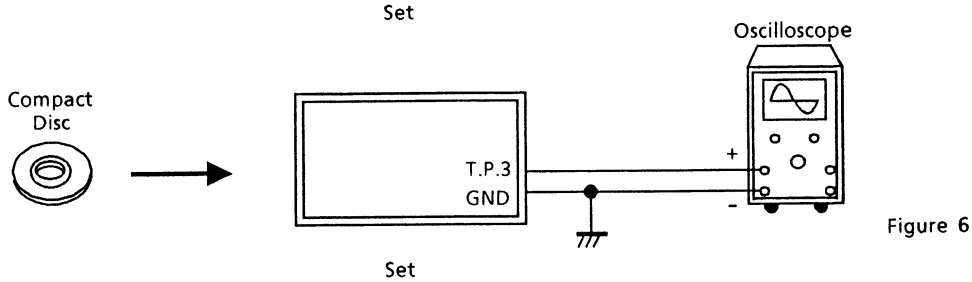


Figure 6

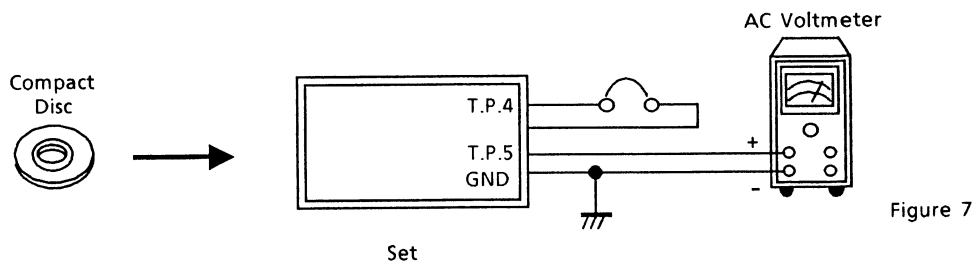


Figure 7

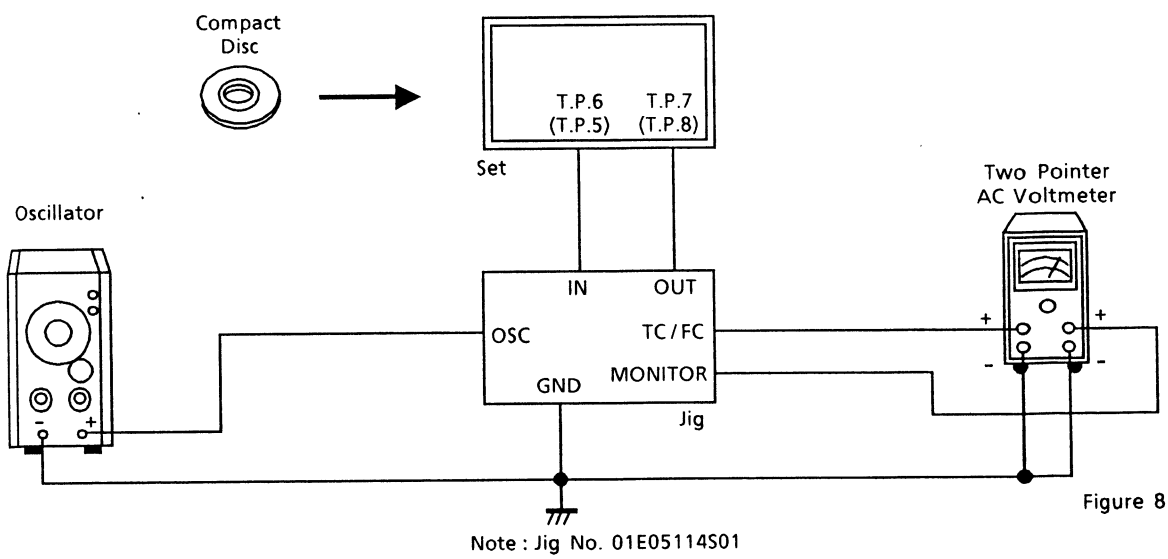


Figure 8

Note : Jig No. 01E05114S01

(2) Control Settings

Power Switch ..... ON
Play Switch ..... ON
Others ..... OFF

(3) Test CD

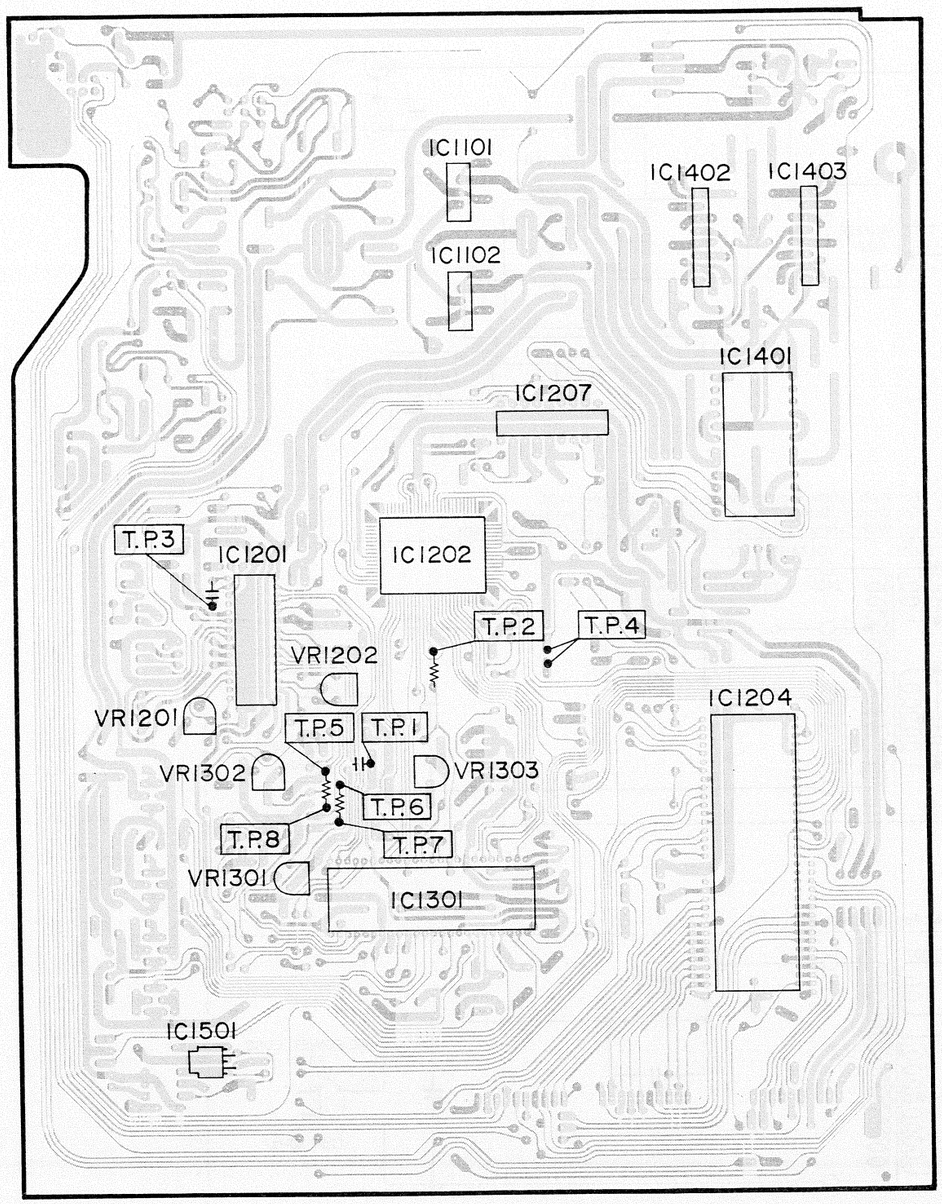
Tracking Error Balance Adjustment ..... SONY YEDS-18 (TNO. 7)
A-BEX TCD-782 (TNO. 8)
Others Adjustment ..... SONY YEDS-18 (TNO. 2)
A-BEX TCD-782 (TNO. 2)

(4) Adjustment Procedures

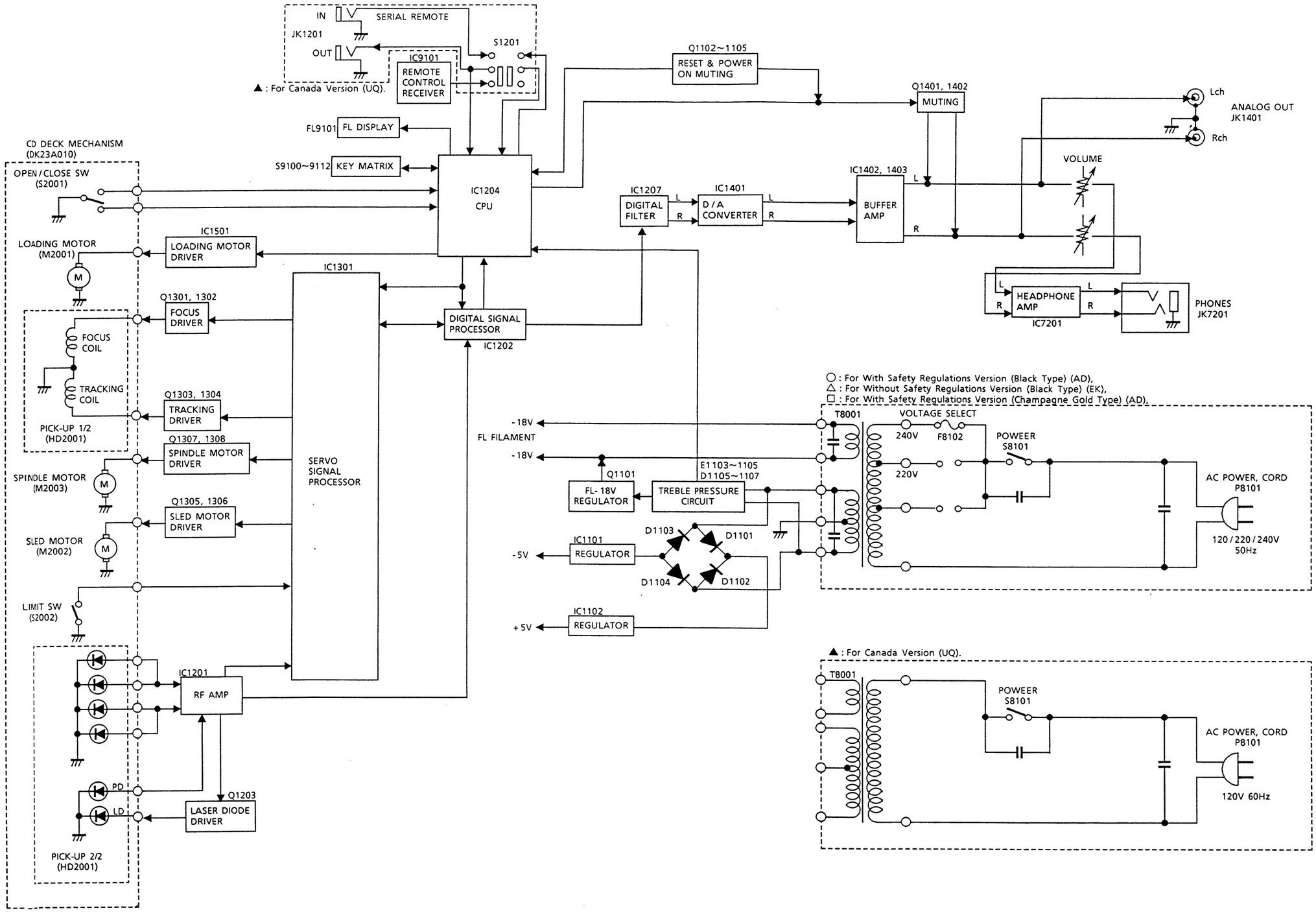
Step	Description	Connections	Oscillator	Test Point	Adjustment
1	VCO Adjustment	Figure 5	-	T.P.1 T.P.2	Measure the voltage at the T.P.1. Then adjust VR1303 so that the output voltage at the T.P.2 becomes 1/2 of the voltage at the T.P.1.
2	Focus Bias Adjustment	Figure 6	-	T.P.3	Adjust VR1202 so that the waveform of oscilloscope becomes maximum as shown in Figure 9.
3	Tracking Error Balance Adjustment	Figure 7	-	T.P.4 T.P.5	After shortcircuiting T.P.4 and turning VR1301 fully counterclockwise, adjust VR1201 so that the voltage is 0 to 10mV. After the adjustment set VR1301 to it's center position.
4	Tracking Gian Adjustment	Figure 8	1kHz 100mV	T.P.6 T.P.7	Adjust VR1301 so that both arms of the voltmeter come at the same position.
5	Focus Gain Adjustment	Figure 8	1kHz 100mV	T.P.5 T.P.8	Adjust VR1302 so that both arms of the voltmeter come at the same position.

Figure 9

Adjustment Location



Block Diagram

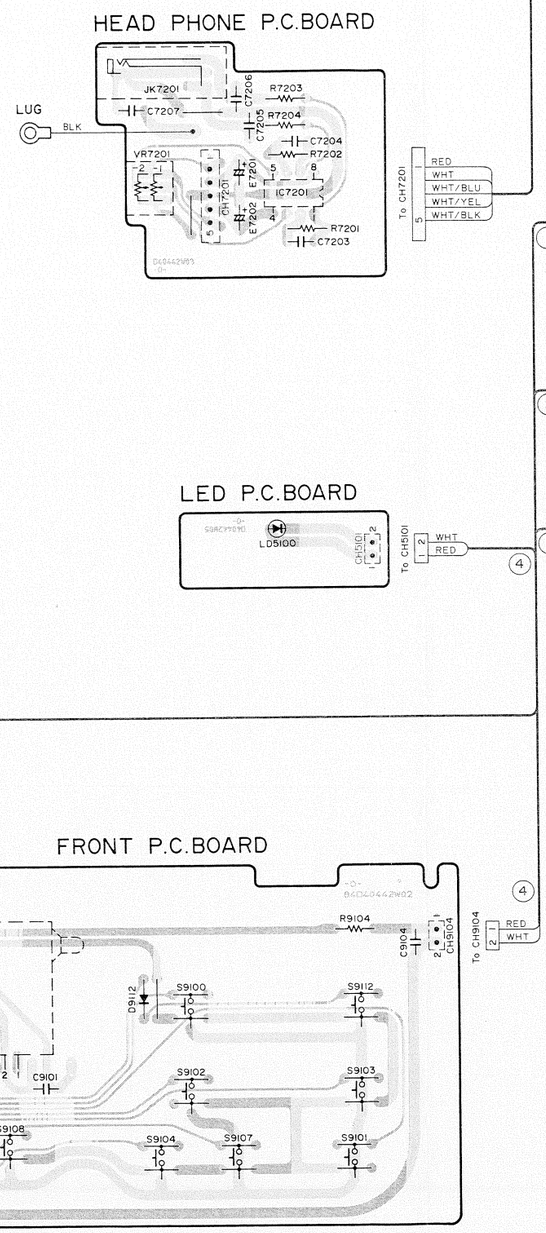


Parts Layout on P.C. Boards and Wiring Diagram

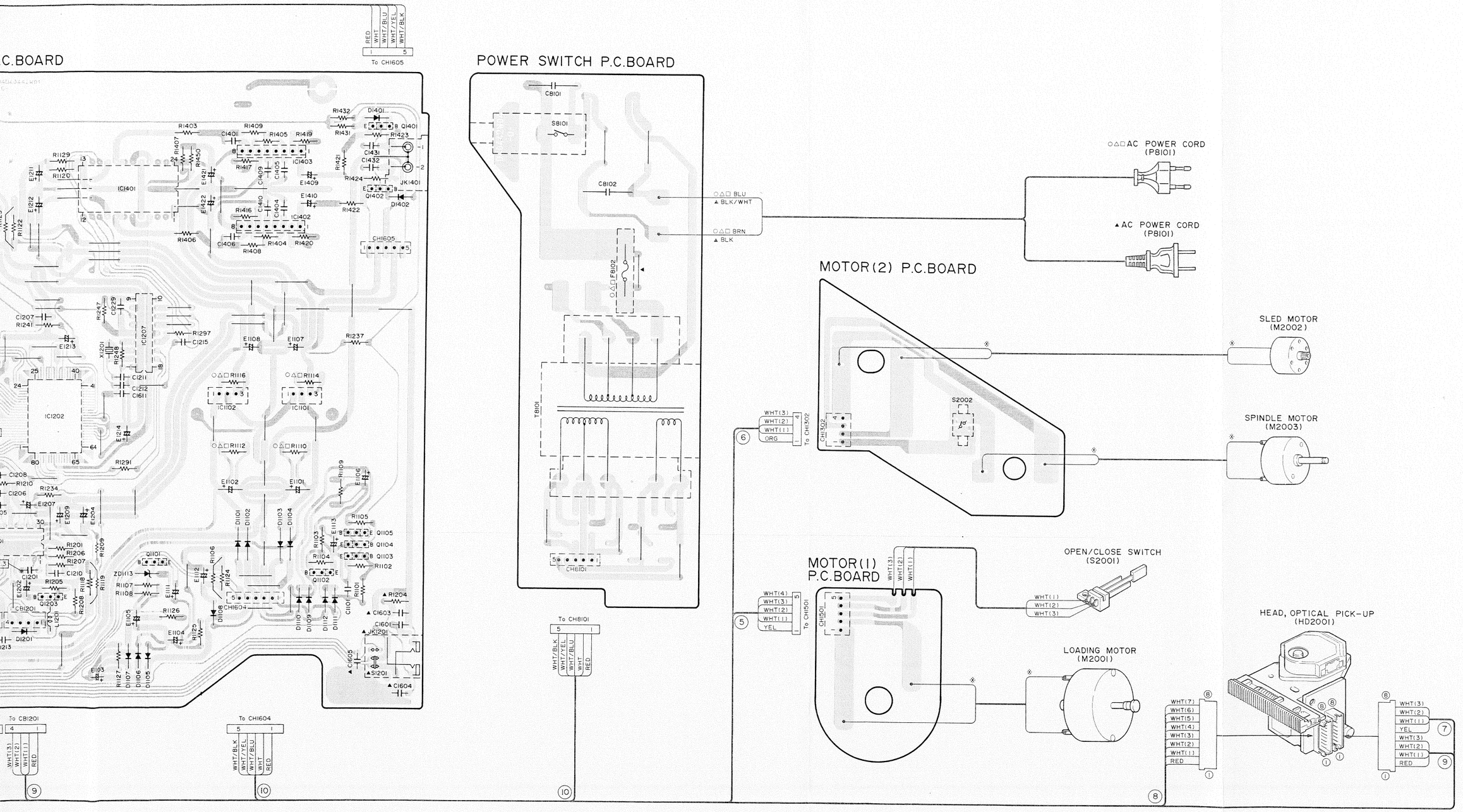
All P.C. Boards viewed from foil side.

Notes
- ○ : For With Safety Regulations Version (Black Type)(AD)
- △ : For Without Safety Regulations Version (Black Type)(EK)
- □ : For With Safety Regulations Version (Champagne Gold Type)(AD)
- ▲ : For Canada Version (UQ)

Others : Common



Blue Pattern: Foil Side Pattern.



Schematic Diagram

IC'S	IC7201	IC1403	IC1402 IC1102 IC1101	IC1201	IC1401	IC1301	IC1207	IC1202
TRANSISTORS (Q)	Q1401 Q1402	Q1105	Q1203 Q1103 Q1101 Q1102 Q1104					

NOTES
○:For With Safety Regulations Version(Black Type)(AD),
△:For Without Safety Regulations Version(Black Type)(EK)
□:For With Safety Regulations Version(Champagne Gold Type)(AD),
▲:For Canada Version(UQ),
Others:Common

:Rch LINE
:Lch LINE
:DATA LINE

MAIN P.C.Board

HEADPHONE P.C.Board

CD MECHANISM(DK23A010)(1/2)

POWER SWITCH P.C.Board(▲)

POWER SWITCH P.C.Board (○△□)

IC1202 IC1204 IC1501 IC9101

Q1302 Q1301 Q1304 Q1303 Q1306 Q1305 Q1308 Q1307

FRONT P.C.Board

FL9101 8-BT-82GKS

IC1204 15980W05 CPU

SERIAL REMOTE OUT — JK1201 IN — S1201 SEREAL REMOTE — D1216 1SS176

T.P.4 ADJ

IC1202 CXD1167QZ DIGITAL SIGNAL PROCESSOR

SUBCODE SYNC DETECTOR — SUBCODE DEMODULATOR — SUBCODE Q REGISTER

EFM-PLL — 23-BIT SHIFT REGISTER — EFM DEMODULATOR

CLV SERVO CONTROL — FRAME SYNC DETECTOR/ PROTECTOR/ INSERTER — ERROR DETECTOR/ CORRECTOR

VCO CIRCUIT TIMING GENERATOR — INTER-POLATOR

X'TAL CIRCUIT TIMING GENERATOR — DIGITAL FILTER — SELECTOR

TRACKING COUNTER — CPU INTERFACE — RAM ADDRESS GENERATOR — DIGITAL OUT

IC1501 LA6501-LR — LOADING MOTOR DRIVER — CURRENT CONTROL

Q1302 2SD1919 FOCUS DRIVER — Q1301 2SB1277

Q1304 2SD1919 TRACKING DRIVER — Q1303 2SB1277

Q1306 2SD1919 SLED MOTOR DRIVER — Q1305 2SB1277

Q1308 2SD1919 SPINDLE MOTOR DRIVER — Q1307 2SB1277

IC9101 QP1U561 — REMOTE CONTROL RECEIVER — COMPA-RATOR — INTEG-RATOR — DEMODU-LATOR — B.P.F — LIMITTER — AMP

LED P.C.Board

CD MECHANISM (DK23A010)(2/2)

ASSY MECHA

M2001 LOADING MOTOR — S2001 OPEN/CLOSE SW

M2002 SPINDEL MOTOR — S2002 LIMIT SW

HD2001(2/2) HEAD,OPTICAL PICK-UP — TRACKING COIL — FOCUS COIL

NOTE

1. All resistance values are in ohms. K=1,000 M=1,000,000
2. All capacitance values are in microfarads. $P=\frac{1}{1,000,000}$

Voltage Measuring Conditions

1. Power Supply Voltage : AC220V,50Hz(○,△,□) AC120V,60Hz(▲)
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between Ground
4. Measuring Conditions : No Sound Truck(Play)

IC1201

1	0V						
2	1.1V						
3	0V						
4	——						
5	3.2V						
6	4.9V						
7	0V						
8	0V						
9	0V						
10	0V						
11	0V						
12	-0.6V						
13	-0.4V						
14	——						
15	-2.2V						
16	5V						
17	0.4V						
18	5V						
19	2.4V						
20	2.5V						
21	0V						
22	-1.2V						
23	-1.9V						
24	0V						
25	-4.3V						
26	0V						
27	0V						
28	0V						
29	-5V						
30	-2V						

IC1202

1	0.1V	21	——	41	0V	61	——
2	5V	22	——	42	0V	62	——
3	2.5V	23	1V	43	0V	63	——
4	2.8V	24	0V	44	0V	64	——
5	2.4V	25	5V	45	0V	65	——
6	2.5V	26	5V	46	0V	66	——
7	5V	27	——	47	0V	67	——
8	2.4V	28	5V	48	0V	68	——
9	2.3V	29	0V	49	0V	69	——
10	0V	30	0V	50	0V	70	——
11	2.1V	31	0V	51	2.3V	71	——
12	0V	32	0V	52	0V	72	——
13	5V	33	5V	53	2.4V	73	5V
14	5V	34	0V	54	——	74	0V
15	0V	35	0V	55	0V	75	2.5V
16	5V	36	0V	56	5V	76	2.5V
17	0.1V	37	0V	57	5V	77	2.5V
18	5V	38	0V	58	0V	78	2.4V
19	0V	39	0V	59	0V	79	2.5V
20	——	40	0V	60	——	80	2.5V

IC1401

1	-5V
2	——
3	——
4	0V
5	0V
6	0V
7	0V
8	0V
9	5V
10	1.8V
11	3.7V
12	1.5V
13	0V
14	3.7V
15	1.8V
16	-5V
17	0V
18	0V
19	0V
20	0V
21	0V
22	——
23	——
24	-5V

IC1301

1	-5V	25	-5V
2	-4.3V	26	0.1V
3	0V	27	——
4	0V	28	5V
5	——	29	0V
6	0V	30	5V
7	0V	31	5V
8	0V	32	0V
9	0V	33	2.6V
10	0V	34	2.6V
11	0.9V	35	2.2V
12	0V	36	2.3V
13	0.5V	37	3.5V
14	0V	38	1.9V
15	0V	39	5V
16	5V	40	2.6V
17	0V	41	5V
18	0V	42	2.6V
19	0V	43	5V
20	0V	44	0V
21	0V	45	0.8V
22	-5V	46	2.5V
23	-4.1V	47	5V
24	5V	48	0V

IC1207

*1	——
2	2.4V
3	2.6V
4	2.4V
5	0V
6	——
7	0.1V
8	0V
9	4.8V
10	——
11	1.8V
12	1.8V
13	3.7V
14	5V
15	1.4V
16	2.5V
17	2.5V
18	2.4V

IC1204

1	-29V	33	4.9V
2	-14.6V	34	1V
3	18V	35	5V
4	14.6V	36	——
5	-19.1V	37	5V
6	-30.4V	38	——
7	-30.4V	39	0V
8	-30.3V	40	0V
9	-30.3V	41	0V
10	-30.2V	42	0V
11	——	43	2V
12	——	44	0V
13	——	45	0V
14	——	46	0V
15	——	47	0V
16	0V	48	——
17	0.1V	49	2.3V
18	5V	50	0V
19	-32.8V	51	0V
20	-4.7V	52	——
21	0V	53	5V
22	5V	54	-32.6V
23	0.4V	55	-28V
24	5V	56	-32.4V
25	5V	57	-27.8V
26	0V	58	-25.4V
27	5V	59	-20.4V
28	5V	60	-21.3V
29	0V	61	-16.8V
30	4.9V	62	-19V
31	——	63	-27.7V
32	5V	64	-30.1V

	IC1402	IC1403	IC7201
1	0V	0V	0V
2	0V	0V	0V
3	0V	0V	0V
4	-5V	-5V	-5V
5	0V	0V	0V
6	0V	0V	0V
7	0V	0V	0V
8	5V	5V	5V

	E	C	B
Q1101	-18.1V	-32.9V	-18.7V
Q1102	0V	0V	0.6V
Q1103	0V	0V	0.6V
Q1104	0V	10.7V	0V
Q1105	11.1V	-4.9V	10.7V
Q1203	3.9V	2.2V	3.2V
Q1301	0.4V	-11.1V	0.9V
Q1302	0.4V	10.7V	0.9V
Q1303	0V	-11.1V	0V
Q1304	0V	10.7V	0V
Q1305	0.1V	-11.1V	0V
Q1306	0.1V	10.7V	0V
Q1307	0.5V	-11.1V	0.8V
Q1308	0.5V	10.7V	0.8V
Q1401	0V	0V	0V
Q1402	0V	0V	0V

IC1501

1	0V
2	0V
3	-11.1V
4	0V
5	10.7V

	IC1101	IC1102	IC9101
1	0V	10.7V	5V
2	-11.1V	0V	4.9V
3	-5V	5V	0V

D-321

H I J K L M N O

Electrical Parts List

Resistor : Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Capacitor : μF = microfarads, pF = picofarads

Abbreviations

RES. =	Resistor	CAP. =	Capacitor
C.F. =	Carbon Film	ELY. =	Electrolytic
M.F. =	Metal Film	CER. =	Ceramic
M.O. =	Metal Oxide Film	MYL. =	Mylar
M.P. =	Metal Plate	TAN. =	Tantalum
TR. =	Transistor	POLY. =	Polystyrol
TRANS. =	Transformer	PP. =	Polypropylene
CP. =	Chip	PLT. =	Polyethylene
		PF. =	Polyester Film

Symbol No.	Part No.	Description
Main P. C. Board		
IC's		
IC1101	51T80339F01	NJM7905FA
○ IC1102	51T35010W01	M5278D05
△ IC1102	51T35010W01	M5278D05
□ IC1102	51T35010W01	M5278D05
▲ IC1102	51T80338F01	NJM7805FA
IC1201	51T84721F01	CXA1081S
IC1202	51T25718W01	CXD1167QZ
IC1204	51T15980W05	15980W05
IC1207	51T35105W01	SM5840CP
IC1301	51T84722F02	CXA1082BS
IC1401	51T35103W01	AD1864P
IC1402	51T90149F02	M5218L
IC1403	51T90149F02	M5218L
IC1501	51T90889F01	LA6501-LR
Transistors		
Q1101	48T82757F01	2SA1561
Q1102	48T82758F01	2SC4038
Q1103	48T82758F01	2SC4038
Q1104	48T82758F01	2SC4038
Q1105	48T82762F02	DTA114EL
Q1203	48T82759F01	2SB1277
Q1301	48T82759F01	2SB1277
Q1302	48T83275F01	2SD1919
Q1303	48T82759F01	2SB1277
Q1304	48T83275F01	2SD1919
Q1305	48T82759F01	2SB1277
Q1306	48T83275F01	2SD1919
Q1307	48T82759F01	2SB1277
Q1308	48T83275F01	2SD1919
Q1401	48T90183F01	2SD1996
Q1402	48T90183F01	2SD1996
Diodes		
D1101	48S40477U01	1N4003
D1102	48S40477U01	1N4003
D1103	48S40477U01	1N4003
D1104	48S40477U01	1N4003
D1105	48T16313W01	1SR139
D1106	48T16313W01	1SR139
D1107	48T16313W01	1SR139
D1108	48T16313W01	1SR139
D1109	48T16313W01	1SR139
D1110	48T16313W01	1SR139
D1111	48T16313W01	1SR139
D1112	48T16313W01	1SR139
D1201	48T58583F01	1SS176
D1203	48T58583F01	1SS176
▲ D1205	48T58583F01	1SS176
▲ D1210	48T58583F01	1SS176
D1211	48T58583F01	1SS176
D1401	48T58583F01	1SS176
D1402	48T58583F01	1SS176
ZD1113	48T52741F54	Zener, HZ18-3L
Coil / Crystal		
L1201	24T70381F21	Inductor, 10μH
X1201	91T84727F02	Crystal, 16.9344MHz
Capacitors		
C1101	08T90316F29	TF, 0.1μF
E1101	23T00181L79	ELY., 3300μF / 16V
E1102	23T00181L79	ELY., 3300μF / 16V
E1103	23T00181L49	ELY., 330μF / 50V
E1104	23T00181L49	ELY., 330μF / 50V
E1105	23T00181L49	ELY., 330μF / 50V
E1106	23T00181L21	ELY., 1000μF / 16V
E1107	23T00181L48	ELY., 100μF / 50V
E1108	23T00181L48	ELY., 100μF / 50V

Notes : ○ : For With Safety Regulations Version (Black Type) (AD),
△ : For Without Safety Regulations Version (Black Type) (EK),
□ : For With Safety Regulations Version (Champagne Gold Type) (AD),
▲ : For Canada Version (UQ), Others : Common.

Symbol No.	Part No.	Description
E1111	23T00180L24	ELY., 4.7μF / 50V
E1112	23T00180L24	ELY., 4.7μF / 50V
E1113	23T00180L25	ELY., 10μF / 50V
C1201	08T90316F13	PF., 4700pF
E1202	23T00180L28	ELY., 47μF / 50V
C1203	08T90316F23	TF, 0.033μF
C1204	08T90316F09	PF., 2200pF
E1204	23T00180L26	ELY., 22μF / 50V
C1205	08T90316F17	PF., 0.01μF
E1205	23T00180L26	ELY., 22μF / 50V
C1206	08T90316F17	PF., 0.01μF
E1206	23T00180L26	ELY., 22μF / 50V
C1207	21S40655F23	CER., 100pF
E1207	23T00180L20	ELY., 0.47μF / 50V
C1208	08T90316F17	PF., 0.01μF
E1209	23T00180L26	ELY., 22μF / 50V
C1210	21S40655F17	CER., 33pF
E1210	23T00180L12	ELY., 22μF / 25V
C1211	21S40655F11	CER., 10pF
E1211	23T00180L26	ELY., 22μF / 50V
C1212	21S40655F11	CER., 10pF
E1212	23T00180L26	ELY., 22μF / 50V
C1213	08T90316F24	TF, 0.039μF
E1213	23T00180L26	ELY., 22μF / 50V
C1214	08T90316F06	PF., 1200pF
E1214	23T00180L26	ELY., 22μF / 50V
C1215	21S40665F17	CER., 33pF
E1215	23T00180L26	ELY., 22μF / 50V
E1220	23T00180L26	ELY., 22μF / 50V
C1229	08T90316F15	PF., 6800pF
C1301	08T90316F13	PF., 4700pF
C1302	21S40655F23	CER., 100pF
C1304	08T90316F28	TF, 0.082μF
C1305	08T90316F29	TF, 0.1μF
C1306	08T90316F23	TF, 0.033μF
E1308	23T00180L24	ELY., 4.7μF / 50V
C1309	08T90316F29	TF, 0.1μF
C1310	08T90316F17	PF., 0.01μF
E1311	23T00180L25	ELY., 10μF / 50V
C1312	08T90316F27	TF, 0.068μF
C1313	08T90316F19	TF, 0.015μF
E1315	23T00180L12	ELY., 22μF / 25V
E1316	23T00180L21	ELY., 1μF / 50V
E1317	23T00180L20	ELY., 0.47μF / 50V
C1318	08T90316F05	PF., 1000pF
C1319	08T90316F17	PF., 0.01μF
E1320	23T00180L25	ELY., 10μF / 50V
C1326	08T90316F28	TF, 0.082μF
C1327	08T90316F28	TF, 0.082μF

Symbol No.	Part No.	Description
E1331	23T00180L13	ELY., 47μF / 25V
E1332	23T00180L13	ELY., 47μF / 25V
C1401	08T90316F08	PF., 180pF
C1404	08T90316F03	PF., 680pF
C1405	08T90316F03	PF., 680pF
C1406	08T90316F08	PF., 1800pF
C1409	08T90316F03	PF., 680pF
E1409	23T00180L25	ELY., 10μF / 50V
C1410	08T90316F03	PF., 680pF
E1410	23T00180L25	ELY., 10μF / 50V
E1421	23T00180L26	ELY., 22μF / 50V
E1422	23T00180L26	ELY., 22μF / 50V
C1431	08T90316F03	PF., 680pF
C1432	08T90316F03	PF., 680pF
C1501	08T90316F28	TF, 0.082μF
C1502	08T90316F07	PF., 1500pF
C1601	08T90316F08	PF., 1800pF
▲ C1603	08T90316F08	PF., 1800pF
▲ C1604	08T90316F08	PF., 1800pF
▲ C1605	08T90316F01	PF., 470pF
C1611	21S40655F17	CER., 33pF

Resistors

R1106	06T00005L50	240 ohm 1W
R1119	06T00005L41	100 ohm 1W
R1123	06T00005L39	82 ohm 1W
VR1201	18T15356W15	Variable, 22K ohm
VR1202	18T15356W15	Variable, 22K ohm
VR1301	18T15356W15	Variable, 22K ohm
VR1302	18T15356W15	Variable, 22K ohm
VR1303	18T15356W09	Variable, 2.2K ohm

Headphone P. C. Board

IC

IC7201	51T90149F01	M5218AP

Capacitors

E7201	23T00180L26	ELY.,	22μF / 50V
E7202	23T00180L26	ELY.,	22μF / 50V
C7203	08T90316F01	PF.,	470pF

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Symbol No.	Part No.	Description
C7204	08T90316F01	PF., 470pF
C7205	08T90316F01	PF., 470pF
C7206	08T90316F01	PF., 470pF
C7207	08T90316F15	PF., 6800pF

Power Switch P. C. Board

Switch / Transformer

	S8101	40T84122F01	Power SDDLE (POWER)
○	T8101	25T16090W01	TRANS., Power
△	T8101	25T16090W01	TRANS., Power
□	T8101	25T16090W01	TRANS., Power
▲	T8101	25T16092W01	TRANS., Power

Capacitors

C8101	08T00196L01	POLY.,	0.01μF
C8102	08T00196L01	POLY.,	0.01μF

Front P. C. Board

IC

IC9101	51T45204W01	GP1U561

Diodes

D9100	48T58583F01	1SS176
D9101	48T58583F01	1SS176
D9102	48T58583F01	1SS176
D9103	48T58583F01	1SS176
D9104	48T58583F01	1SS176
D9105	48T58583F01	1SS176
D9106	48T58583F01	1SS176
D9107	48T58583F01	1SS176
D9108	48T58583F01	1SS176
D9109	48T58583F01	1SS176
D9110	48T58583F01	1SS176
D9111	48T58583F01	1SS176
D9112	48T58583F01	1SS176

Symbol No.	Part No.	Description
LED		
LD9100	48T66959F01	SLR-54VC3F (RED)

Switches

S9100	40T83324F15	Tact, SKHHPM (PLAY / PAUSE)
S9101	40T83324F15	Tact, SKHHPM (STOP)
S9102	40T83324F15	Tact, SKHHPM (FF / FS)
S9103	40T83324F15	Tact, SKHHPM (BS / FB)
S9104	40T83324F15	Tact, SKHHPM (RANDOM)
S9105	40T83324F15	Tact, SKHHPM (A-SCAN)
S9106	40T83324F15	Tact, SKHHPM (A-PAUSE)
S9107	40T83324F15	Tact, SKHHPM (REPEAT)
S9108	40T83324F15	Tact, SKHHPM (PROGRAM)
S9109	40T83324F15	Tact, SKHHPM (CLEAR)
S9110	40T83324F15	Tact, SKHHPM (CHECK)
S9111	40T83324F15	Tact, SKHHPM (DISPLAY)
S9112	40T83324F15	Tact, SKHHPM (OPEN / CLOSE)

Capacitors

C9101	08T90316F11	PF.,	3300pF
E9102	23T95078F28	ELY.,	47μF / 16V
C9103	08T90316F11	PF.,	3300pF
C9104	08T90316F11	PF.,	3300pF

Notes : ○ : For With Safety Regulations Version (Black Type) (AD),
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Symbol No.	Part No.	Description
	Miscellaneous	
○	F8102	65T42077U09	Fuse, Semko (200mA)
△	F8102	65T42077U09	Fuse, Semko (200mA)
□	F8102	65T42077U09	Fuse, Semko (200mA)
	FL9101	65T15806W02	FL Display
	HD2001	88E08496S01	Head, Optical Pick Up
▲	JK1201-S1201	09T84124F01	Jack (SERIAL REMOTE IN/OUT)
	JK1401	09T25719W01	Jack, T6482 (ANALOG OUT)
	JK7201	09T66672F06	Jack, Headphone (Phones)
	LD5100	48T72813F01	SLR-34DC3F (ORG)
	M2001	01E08448S01	Assy., Loading Motor
	M2002	01E08458S01	Assy., Sled Motor
	M2003	01E08459S01	Assy., Spindle Motor
○	P8101	92176825	AC Power Cord
△	P8101	92176825	AC Power Cord
□	P8101	92176825	AC Power Cord
▲	P8101	92176751	AC Power Cord
	S2001	40E08481S01	Switch, Leaf (OPEN/CLOSE)
	S2002	40E08482S01	Switch, Leaf (LIMIT)
	VR7201	18T84123F02	Variable, 50K ohm

Symbol No.	Part No.	Description

Notes : ○ : For With Safety Regulations Version (Black Type) (AD),
△ : For Without Safety Regulations Version (Black Type) (EK),
□ : For With Safety Regulations Version (Champagne Gold Type) (AD),
▲ : For Canada Version (UQ), Others : Common.

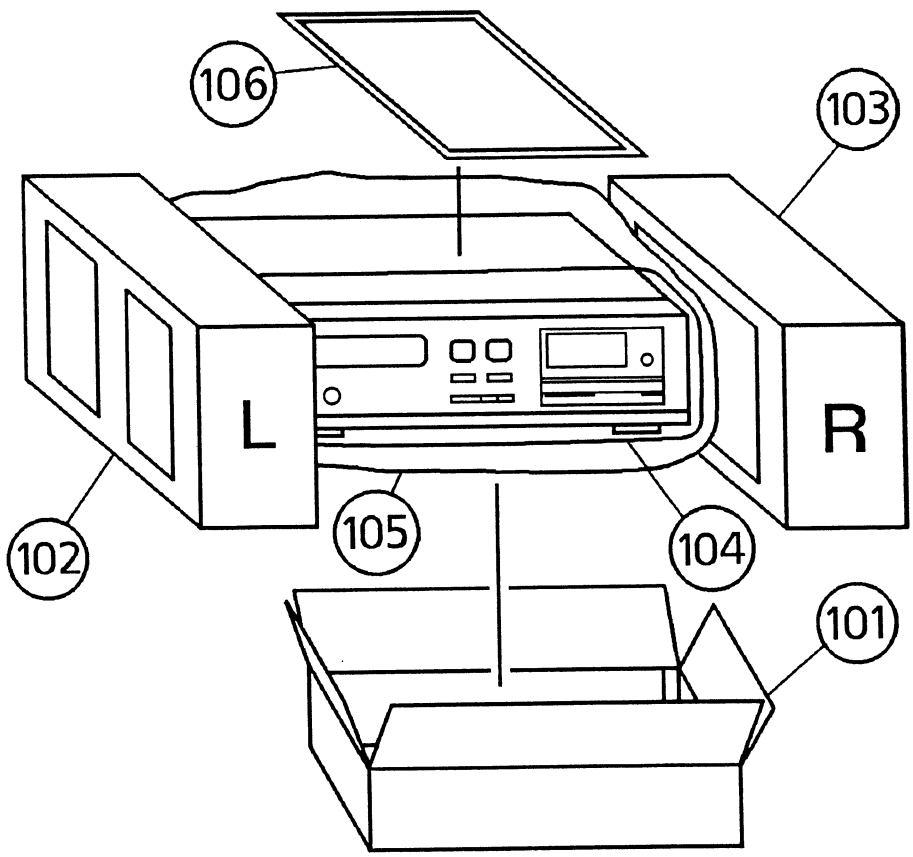
Packing Assembly Parts List

Symbol No.		Part No.	Description
○	101	92929878	Carton, Packing (Individual)
△	101	92929878	Carton, Packing (Individual)
□	101	92929882	Carton, Packing (Individual)
▲	101	92929878	Carton, Packing (Individual)
	102	92938618	Cushion, (L)
	103	92938619	Cushion, (R)
	104	92947082	Protector
	105	92941003	Sack, Polyethylene
	106-1	68P21522W63	Owner's Manual
	106-2	92101314	Battery
	106-3	92187778	Plug, US1P Cord
	106-4	92120287	Remote Control Unit

Symbol No.	Part No.	Description

Notes : ○ : For With Safety Regulations Version (Black Type) (AD),
△ : For Without Safety Regulations Version (Black Type) (EK),
□ : For With Safety Regulations Version (Champagne Gold Type) (AD),
▲ : For Canada Version (UQ), Others : Common.

Packing Method View



Cabinet Assembly Parts List

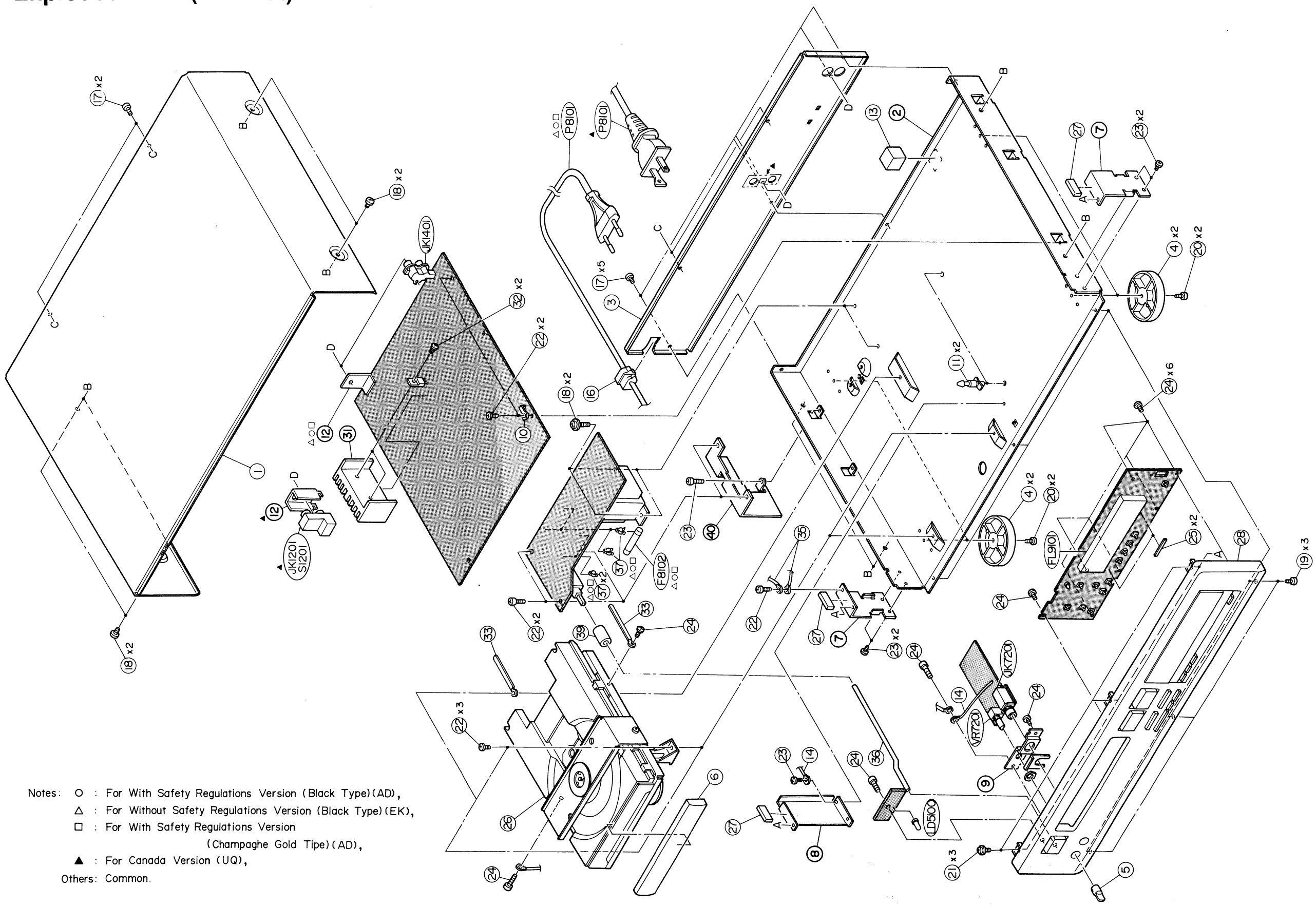
Notes : ● The parts without parts list are not supplied.
● Parts marked * will need a long delivery time, or may be not supplied in some cases.

Symbol No.	Index	Part No.	Description
○ 1	3-B	92837943	Cover, Top
△ 1	3-B	92837943	Cover, Top
□ 1	3-B	92837948	Cover, Top
▲ 1	3-B	92837943	Cover, Top
○ 3	2-D	92838636	Cover, Rear
△ 3	2-D	92838626	Cover, Rear
□ 3	2-D	92838636	Cover, Rear
▲ 3	2-D	92838629	Cover, Rear
4		90842695	Foot
○ 5	5-G	90874814	Knob, Volume (B)
△ 5	5-G	90874814	Knob, Volume (B)
□ 5	5-G	90874877	Knob, Volume (G)
▲ 5	5-G	90874814	Knob, Volume (B)
○ 6	5-E	90718721	Panel, Tray (B)
△ 6	5-E	90718721	Panel, Tray (B)
□ 6	5-E	90718728	Panel, Tray (G)
▲ 6	5-E	90718721	Panel, Tray (B)
10	3-D	29A11624W01	Lug, P.C.Board
11	3-F	92755988	Support, P.C.Board
13	1-E	92766771	Rubber
14		01T95113F06	Assy., Lug Wire
16	3-D	95844322	Bushing, Cord
17		92707885	Screw, Bind (M3×8)
18		92707040	Screw, Bind (M4×6)
○ 19	4-H	92707911	Screw, Bind (M3×8)
△ 19	4-H	92707911	Screw, Bind (M3×8)
□ 19	4-H	92707842	Screw, Bind (M3×8)
▲ 19	4-H	92707911	Screw, Bind (M3×8)
20		92707852	Screw, Pan (M3×12)
21	5-F	92708022	Screw, Pan (M3×6)
22		92707842	Screw, Bind (M3×8)
23		92707910	Screw, Bind (M3×6)
24		92707979	Screw, Bind (M2.6×8)
25	4-G	92766890	Cushion, FL
*26	5-C	81T25297W01	CD Mechanism, DK23A010
27		92766894	Cushion, Cover
○ 28	4-G	90017659	Assy., Front Panel
△ 28	4-G	90017659	Assy., Front Panel
□ 28	4-G	90017660	Assy., Front Panel
▲ 28	4-G	90017661	Assy., Front Panel
32	2-C	03S72235F19	Screw, Bind (M3×6)
33		92755623	Lug, Clamp
35	3-E	01T92483F01	Assy., Lug Wire

Symbol No.	Index	Part No.	Description
36	5-E	95727675	Rod
○ 37		09T51410F01	Holder, Fuse
△ 37		09T51410F01	Holder, Fuse
□ 37		09T51410F01	Holder, Fuse
39	4-D	90842699	Spacer Rubber

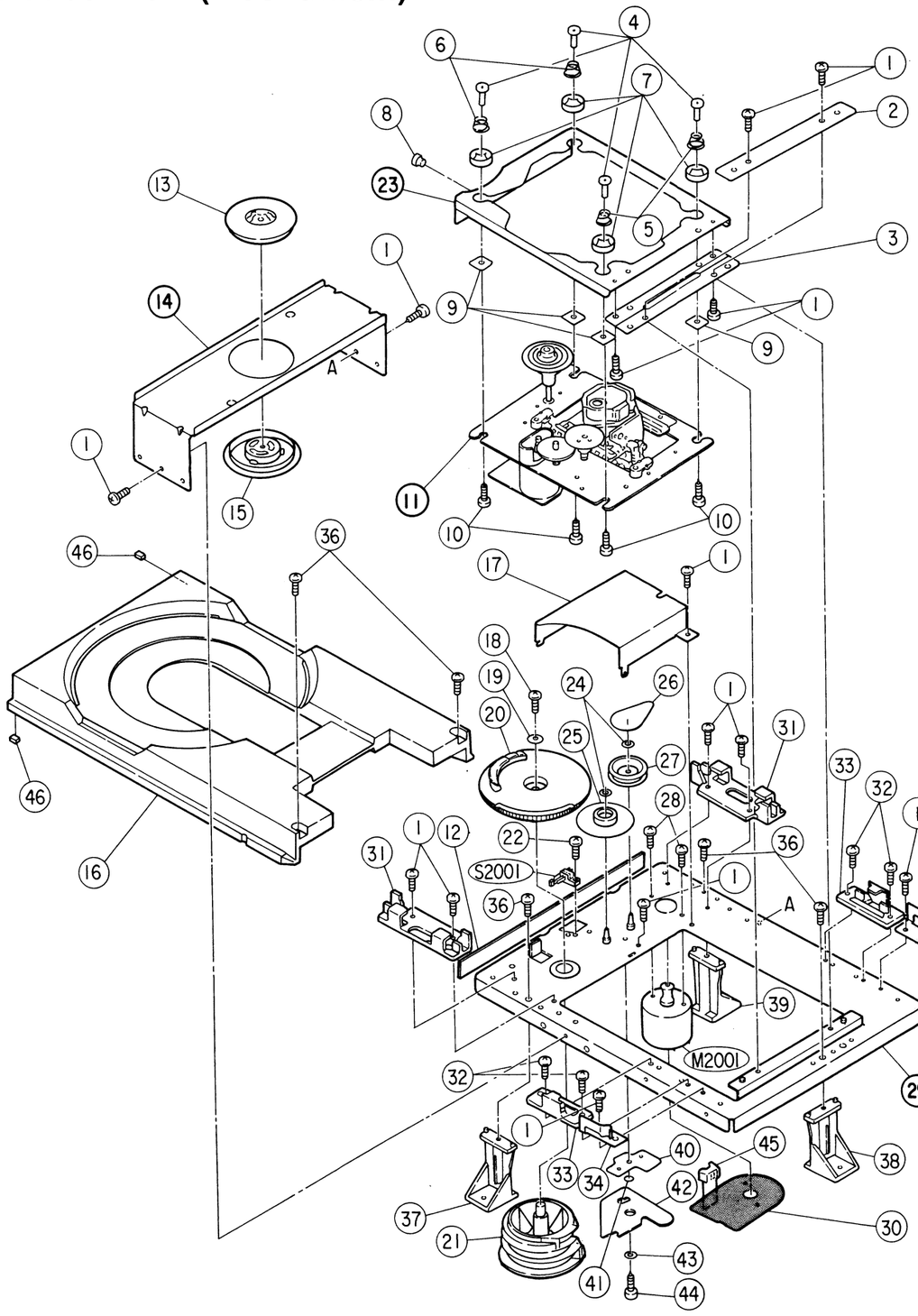
Notes : ○ : For With Safety Regulations Version (Black Type) (AD),
△ : For Without Safety Regulations Version (Black Type) (EK),
□ : For With Safety Regulations Version (Champagne Gold Type) (AD),
▲ : For Canada Version (UQ), Others : Common.

Exploded View (Cabinet)



Notes: ○ : For With Safety Regulations Version (Black Type)(AD),
△ : For Without Safety Regulations Version (Black Type)(EK),
□ : For With Safety Regulations Version (Champaghe Gold Tipe)(AD),
▲ : For Canada Version (UQ),
Others: Common.

Exploded View (Mechanism)



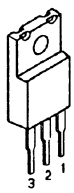
Mechanism Assembly Parts List

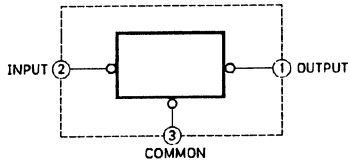
NOTE : The parts without parts list are not supplied.

Symbol No.	Index	Part No.	Description
1		03E03010S02	Screw, Round (M2.6×6)
2	1-D	07E08437S01	Plate, Hinge Hold
3	2-D	07E08445S01	Hinge
4	1-C	49E08460S01	Shaft (T)
5	1-C	41E08465S01	Spring, Coil (B)
6	1-C	41E08466S01	Spring, Coil (A)
7	1-C	14E08467S01	Insulator (C)
8	1-B	49E08461S01	Roller
9		15E08468S01	Plate (T)
10		03E08471S01	Screw, W/Washer (M1.8×8)
12	4-C	01E08456S01	Tape, Front
13	1-B	01E08446S01	Assy., Magnet
15	3-B	49E08462S01	Pulley, Chacking
16	4-A	01E08447S01	Tray
17	3-C	15E08469S01	Cover, Gear
18	3-C	03E08497S01	Screw, Bind (M2.6×10)
19	3-C	04E08475S01	Washer, Flat (M2.6)
20	3-C	44E08490S01	Gear, Drive
21	5-C	45E08492S01	Cam, Control
22	4-C	03E03010S03	Screw, Round (M2×4)
24	3-C	04E02927S01	Washer, Lock (M2)
25	3-C	44E08491S01	Gear, Middle
26	3-C	42E08484S01	Belt
27	3-C	49E08463S01	Pulley, Loading
28	4-C	03E02990S01	Screw, Bind (M2.6×3)
30	5-D	84E08495S01	Motor P.C.Board
31		15E08449S01	Holder, Tray (Front)
32		03E03008S02	Screw, Pan (M2×4)
33		15E08450S01	Holder, Tray (Rear)
34	5-C	45E08493S01	Guide, Tray (R)
35	4-D	45E08493S02	Guide, Tray (L)
36		03E08497S02	Screw, Bind (M3×10)
37	5-B	01E08451S01	Boss, MD Bracket (R)
38	5-D	01E08452S01	Boss, MD Bracket (Rear)
39	4-D	01E08453S01	Boss, MD Bracket (L)
40	5-C	15E08470S01	Plate, Link
41	5-C	01E08454S01	Boss
42	5-C	01E08455S01	Assy., Stopper Link
43	5-C	43E08485S01	Spacer
44	5-C	03E08498S01	Screw, Frange (M2.6×8)
45	5-D	09E08476S01	Connector (5P)
46		43E08486S01	Damper
101	1-F	49E08464S01	Shaft, Slide
103	2-E	03E08472S01	Screw, Flat (M2×5)
104	3-E	15E08457S01	Holder, Slide
105	2-F	03E02984S02	Screw, Pan (M2×5)
106	2-F	15E08478S01	Cover, Gear
107	4-F	09E08477S01	Connector (4P)
108	2-G	03E08473S01	Screw, Flat (M1.7×3)
109	2-G	44E08488S01	Gear (A)
110	2-G	44E08489S01	Gear (B)
111		03E08474S01	Screw, Flat (M2.6×8)
112		42E08483S01	Clamp, Shaft

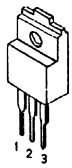
Semi-Conductor Lead Identifications

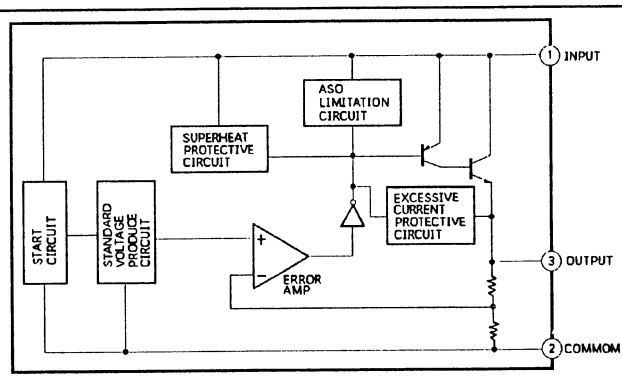
NJM7905FA : IC1101



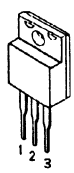


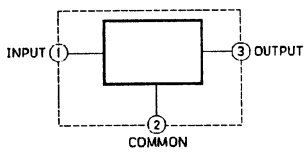
M5278D05 : IC1102 (○, △, □)



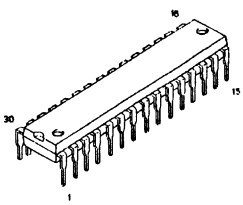


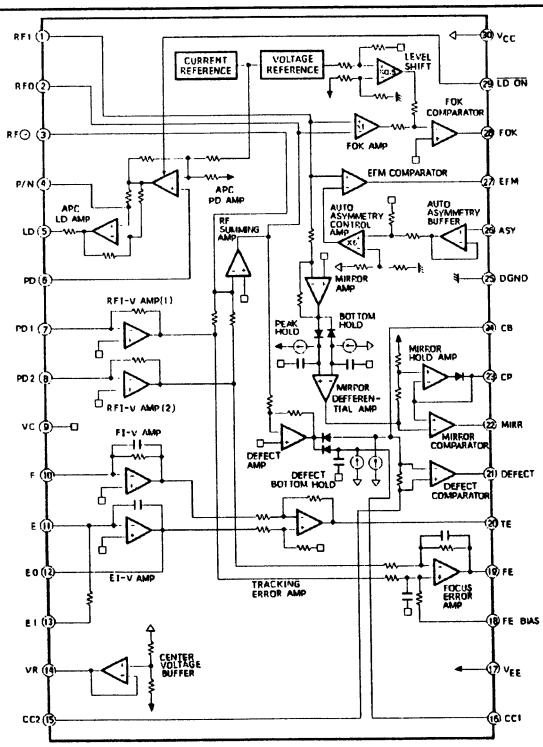
NJM7805FA : IC1102 (▲)





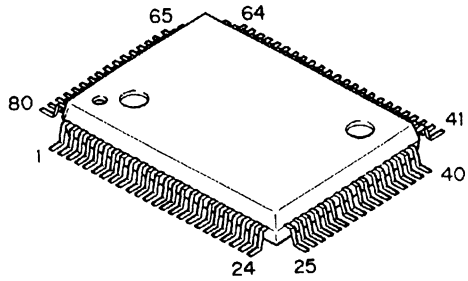
CXA1081S : IC1201

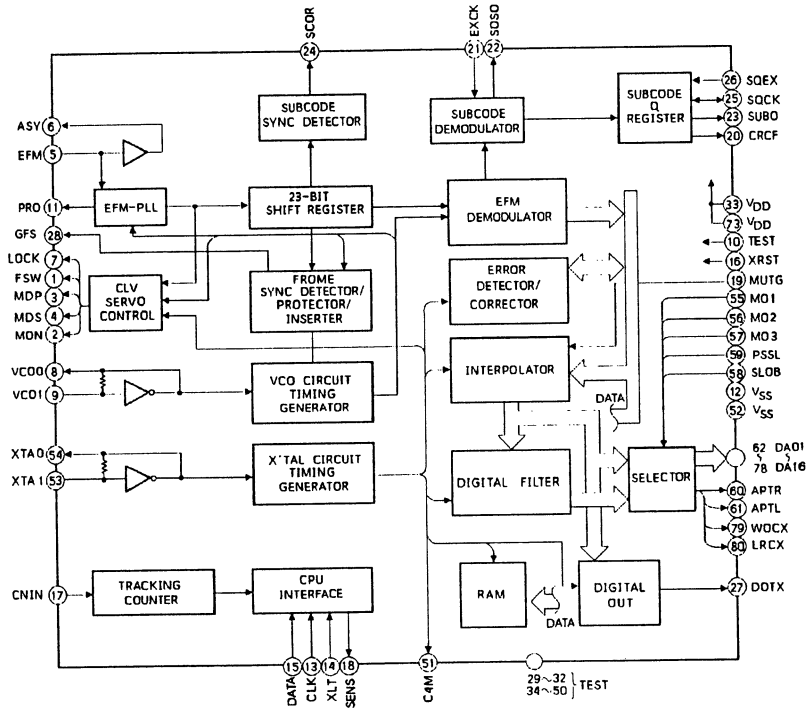




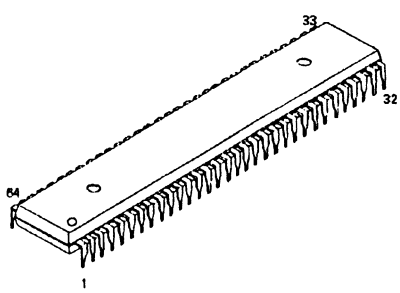
Notes : ○ : For With Safety Regulations Version (Black Type) (AD),
△ : For Without Safety Regulations Version (Black Type) (EK),
□ : For With Safety Regulations Version (Champagne Gold Type) (AD),
▲ : For Canada Version (UQ), Others : Common.

CXD1167QZ : IC1202



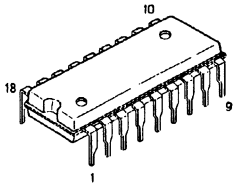


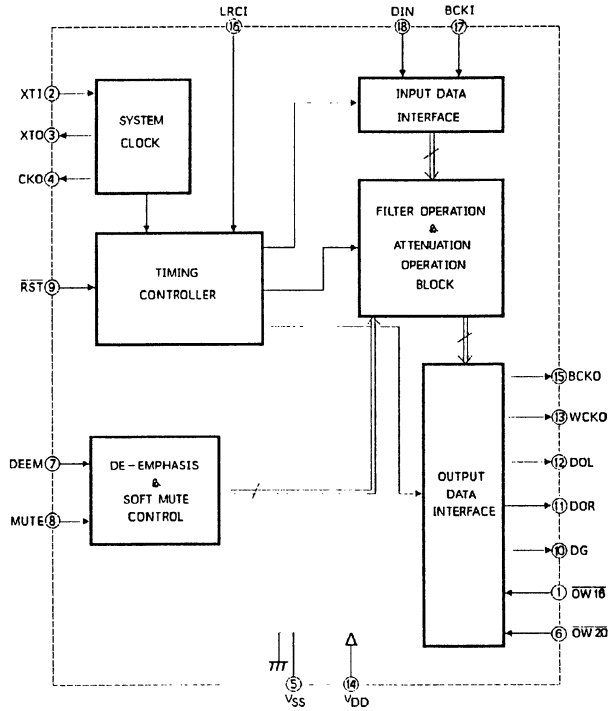
15980W05 : IC1204



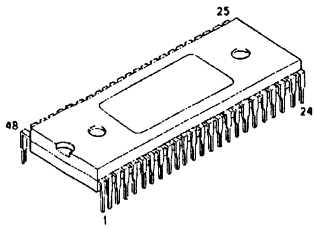
PIN NO.	CORD ADDRESS	I/O	PIN NO.	CORD ADDRESS	I/O	PIN NO.	CORD ADDRESS	I/O
1	SEG 4	I/O	23	/LDON	I/O	45	KRT1	I
2	SEG 3	I/O	24	XRST	I/O	46	KRT0	I
3	SEG 2	I/O	25	XLT	I/O	47	RST	I
4	SEG 1	I/O	26	DATA	I/O	48	OSC 2	I/O
5	SEG 0	I/O	27	CLK	I/O	49	OSC 1	I/O
6	5G	I/O	28	INT0	I/O	50	GND	—
7	4G	I/O	29	SCOR	I/O	51	CL1	I/O
8	3G	I/O	30	/RMC	I/O	52	NC	—
9	2G	I/O	31	NC	—	53	TST	I
10	1G	I/O	32	V_{CC}	—	54	SEGF	I/O
11	NC	—	33	SQCK	I/O	55	SEGE	I/O
12	NC	—	34	SUBQ	I/O	56	SEGD	I/O
13	NC	—	35	FOK	I/O	57	SEGC	I/O
14	NC	—	36	NC	—	58	SEGB	I/O
15	NC	—	37	SENS	I/O	59	SEGA	I/O
16	DISP	I/O	38	NC	—	60	SEG9	I/O
17	EMPH	I/O	39	MUTG	I/O	61	SEG8	I/O
18	GFS	I	40	GND	—	62	SEG7	I/O
19	VFDP	I	41	CLOS	I/O	63	SEG6	I/O
20	AMUTE	I/O	42	OPEN	I/O	64	SEG5	I/O
21	CLSSW	I/O	43	SWRT	I			
22	OPNSW	I/O	44	KRT2	I			

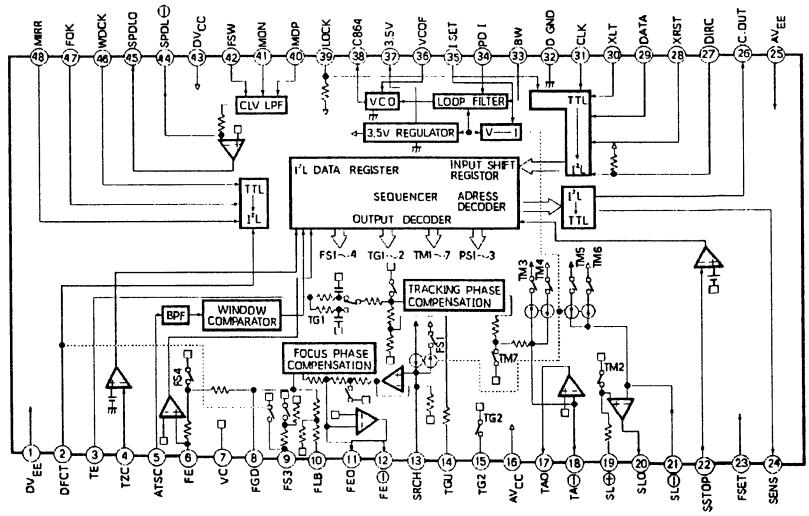
SM5840CP : IC1207



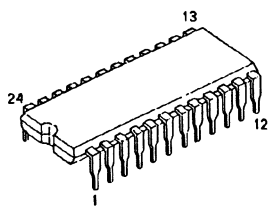


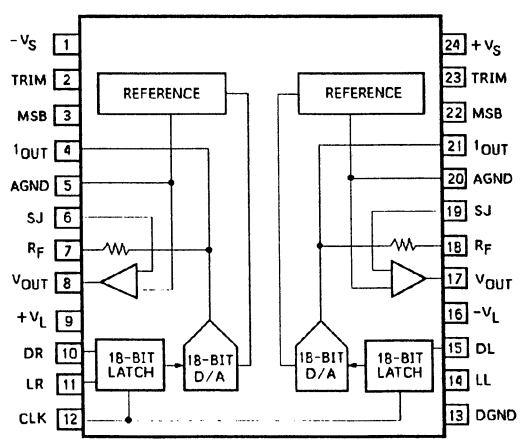
CXA1082BS : IC1301



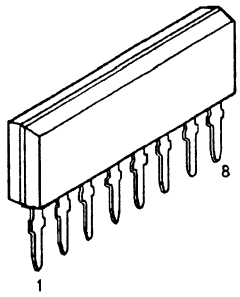


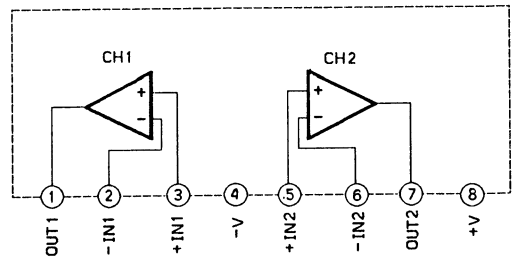
AD1864P : IC1401



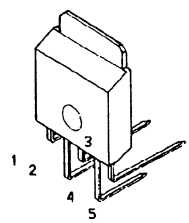


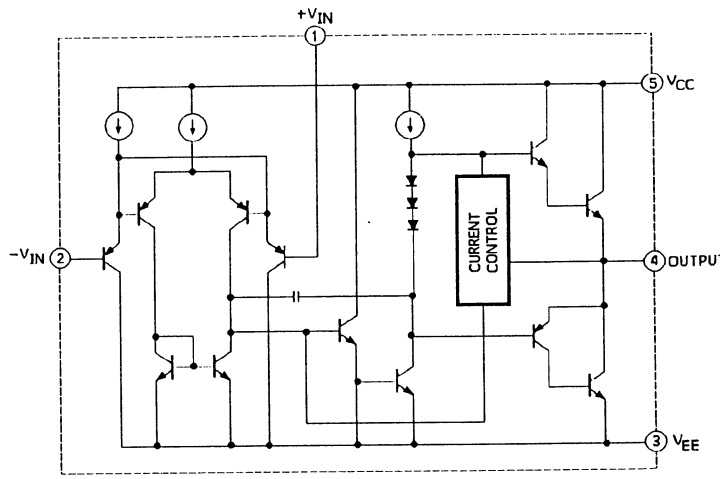
M5218 : IC1402, 1403



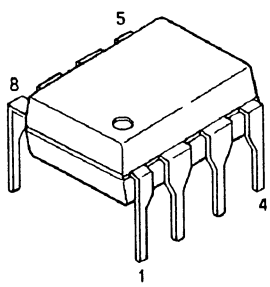


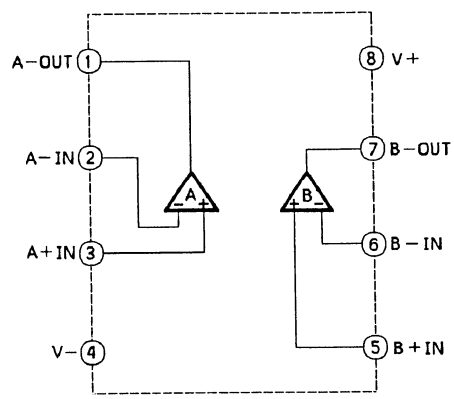
LA6501-LR : IC1501





M5218AP : IC7201





GP1U561 : IC9101